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AZEMAR, GUERSSY	
ART UNIT	**PAPER NUMBER**
2613	

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/647,935	NORMAN, CHARLES W.	
	Examiner	Art Unit	
	Guerssy Azemar	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1 – 4, 9 – 11, 13, 17 – 20, 25 – 27, 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Gerstel et al. (6,898,376).

(1) With respect to claims 1 and 17:

As shown in figure 2, Gerstel et al. discloses A communication system to transfer user communications for a user, the communication system comprising:

an optical network (76 in figure 2A) configured to transfer first user communications (output of Mux 64 in figure 2A) over a first optical wavelength (column 2, line 5) and over a second optical wavelength (column 2, line 5);

a first Point-of-Presence (51 in figure 2A, a POP is an access point where the presence of the signal is tested before entering the network as is taught in column 3, line 39 of the reference) configured to receive the first user communications from a first user system (53 in figure 2A), transfer the first user communications to the optical network over the first optical wavelength (column 2, line 5), and responsive to a problem with the transfer of the first user communications over the first optical wavelength , to

transfer the first user communications to the optical network over the second optical wavelength (output of Mux 82 in figure 2A) instead of the first optical wavelength (column 1, line 28 - 33); and

a second POP (52 in figure 2B) configured to receive the first user communications from the optical network over the first optical wavelength (PO (T1 in figure 2B)) and transfer the first user communications to a second user system (98 in figure 2B), and responsive to the problem with the transfer of the first user communications over the first optical wavelength, to receive the first user communications from the optical network over the second optical wavelength instead of the first optical wavelength (PO(T2) in figure 2B) and transfer the first user communications to the second user system (98 in figure 2B).

(2) With respect to claims 2 and 18:

Gerstel et al. teaches he communication system, wherein the first POP (51 in figure 2A) is configured to receive the first user communications from the first user system (53 "client" in figure 2A) over the first optical wavelength (PI (T1)).

(3) With respect to claims 3 and 19:

Gerstel et al. teaches the communication system, wherein the second POP (98 in figure 2B) is configured to transfer the first user communications to the second user system (PO (T1 in figure 2B, transferred to 98 in figure 2B, second user is client)) over the first optical wavelength.

(4) With respect to claims 4 and 20:

Gerstel et al. teaches the communication system, wherein the first POP (51 in figure 2A) is configured to detect the problem with the transfer of the first user communications over the first optical wavelength (the determining means disclosed in column 2, line 26, determines whether transponder T1 in figure 2A is outputting, if not T2 in figure 2A picks up).

(5) With respect to claims 9 and 25:

Gerstel et al. teaches the communication system, wherein the optical network is configured to transfer the first user communications over the first optical wavelength in a first physical path (output of Mux 64 in figure 2A) and transfer the first user communications over the second optical wavelength in a second physical path (output of Mux 82 in figure 2A) wherein the first physical path is geographically diverse from the second physical path (one coming out of OLT1 and the other out of OLT2).

(6) With respect to claims 10 and 26:

Gerstel et al. teaches the communication system, wherein the optical network is configured to transfer second user communications over a third optical wavelength (LI (T1) in figure 2A, column 3, line 46) and over a fourth optical wavelength (LI (T2) in figure 2A, column 4, line 16);

the second POP (52 in figure 2B) is configured to receive the second user communications from the second user system (PI (T1) in figure 2B), transfer the second user communications to the optical network over the third optical wavelength (LO (T1) in figure 2B), and responsive to a problem with the transfer of the second user communications over the third optical wavelength, to transfer the second user

communications to the optical network over the fourth optical wavelength instead of the third optical wavelength (PO (T2) in figure 2B, responsive to a problem means "if a break occurs" phrase mentioned in column 1, lines 28 – 33, to start protection scheme); and

the first POP (51 in figure 2A) is configured to receive the second user communications from the optical network over the third optical wavelength (LI (T1) in figure 2A) and transfer the second user communications to the first user system (the third signal is not shown at the input of user system 1 or at 53 in figure 2A but it is supported in columns 4, and 5, lines 66, and 1 – 5 respectively), and responsive to the problem with the transfer of the second user communications over the third optical wavelength, to receive the second user communications from the optical network over the fourth optical wavelength instead of the third optical wavelength and transfer the second user communications to the first user system (if a break occurs LI (T2) in figure 2A would be used instead).

(7) With respect to claims 11 and 27:

Gerstel et al. teaches the communication system, wherein the first POP (6 in figure 1) comprises a wavelength switching system (14, 16 in figure 1) configured to receive the first user communications from the first user system (6 in figure 1) and transfer the first user communications over the first optical wavelength (2 in figure 1) or over the second optical wavelength (4 in figure 1).

(8) With respect to claims 13 and 29:

Gerstel et al. teaches the communication system, wherein the first POP (51 in figure 2A) comprises a Wavelength Division Multiplexing system (64, 82 in figure 2A, blocks 64 and 82 constitutes a WDM system, they operates within the same POP, and are interrelated) configured to receive the first user communications from the wavelength switching system (transponders T1 and T2, and processors 62 and 80 in figure 2A operate as the switching system. Depending on status signals received/transmitted in line 66 of processor 66 and line 82 of processor 80 in figure 2A, the system toggles between T1 and T2 in order to transmit or receive user communication) over the first optical wavelength (PI (T1) in figure 2A) and transfer the first user communications over the first optical wavelength (LO (T1) in figure 2A) or to receive the first user communications from the wavelength switching system (blocks 60, 62, 80, 78 in figure 2A as explained above) over the second optical wavelength (PI (T2) in figure 2A) and transfer the first user communications over the second optical wavelength (LO (T2) in figure 2A).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 5,14, 21, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerstel et al. (6,898,376) in view of Lee et al. (20030012129).

(1) With respect to claims 5 and 21:

Gerstel et al. teaches the communication system, wherein:

the second POP (52 in figure 2B) is configured to detect the problem with the transfer of the first user communications over the first optical wavelength (see flow diagrams of figure 3, shows the steps of detecting a problem in the second POP).

the first POP (51 in figure 2A) is configured to receive the control instruction (inputs 66 and 82 of processors 62 and 80 respectively, they receive instructions as supported in column 3, lines 23 – 25 of the reference) and transfer the first user communications to the optical network over the second optical wavelength responsive to the control instruction (OLT2 is used if a break occurs in figure 2A).

However, Gerstel et al. does not teach transfer a control instruction to the first POP.

Lee et al. teaches transfer a control instruction to the first POP (404 in figure 4, Once a failure is detected by the "receiving node" or "the second POP as explained in page 3, paragraph 0034, the sending node is notified to reroute, in other words use protection path).

Gerstel et al. and Lee et al. differ in that they do not use the same protection scheme. The switching is effected differently. Gerstel lets the detector node perform the switching whereas Lee et al. sends a control message to notify the sender node (404 in figure 4). Therefore it would have been obvious to one of ordinary skill in the art

at the time of the invention to send a control message as taught by Lee et al. to the source node taught by Gerstel et al. because Lee et al. promises a faster protection mechanism (page 2, paragraph 0015).

(2) With respect to claims 14 and 30:

Gerstel et al. teaches all of the subject matter as described above except for the communication system, wherein: the WDM system is configured to detect the problem with the transfer of the first user communications over the first optical wavelength and transfer a control instruction to the wavelength switching system; and the wavelength switching system is configured to receive the control instruction and transfer the first user communications to the optical network over the second optical wavelength responsive to the control instruction.

However, Lee et al. teaches the WDM system (the reference teaches a RPR which operates with WDM as mentioned in page 1, paragraph 0002) is configured to detect the problem with the transfer of the first user communications over the first optical wavelength (page 3, paragraph 0034, if one node detects a segment failure) and transfer a control instruction to the wavelength switching system (404 in figure 4, it notifies the source RPR); and the wavelength switching system is configured to receive the control instruction (page 3, paragraph 0034, "upon receiving such a notification, which is the control message) and transfer the first user communications to the optical network over the second optical wavelength responsive to the control instruction (404 in figure 4, it reroutes the data onto the protection path).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the WDM system detect a problem as taught by Lee et al. in the network of Gerstel et al. because it would have achieved faster protection switching (page 1, paragraph 0015).

5. Claims 6, 7, 8, 22, 23, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerstel et al. (6,898,376) in view of Rochberger et al. (6,272,107).

(1) With respect to claims 6 and 22:

Gerstel et al. teaches the communications system, wherein:

the first POP (51 in figure 2A) is configured to receive the control instruction (inputs 66 and 82 of processors 62 and 80 respectively, they receive instructions as supported in column 3, lines 23 – 25 of the reference) and transfer the first user communications to the optical network over the second optical wavelength responsive to the control instruction (OLT2 is used if a break occurs in figure 2A).

However, Gerstel et al. does not teach the optical network is configured to detect the problem with the transfer of the first user communications over the first optical wavelength and transfer a control instruction to the first POP.

Rochberger et al. teaches the optical network is configured to detect the problem with the transfer of the first user communications over the first optical wavelength (column 15, lines 55 – 61, when the break occurs, either node on each side can detect it, 16 or 18 in figure 15) and transfer a control instruction to the first POP (112 in figure 8, release message is the same as a control message).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention of to use the way of detecting failure by the network taught by Rochberger et al. in the network taught by Gerstel et al. since it promises to minimize data loss. In other words the network would be more reliable (column 5, line 3).

(2) With respect to claims 7 and 23:

Gerstel et al. teaches the user (53 in figure 2A) and the communications system, wherein:

the first POP (51 in figure 2A) is configured to receive the control instruction (inputs 66 and 82 of processors 62 and 80 respectively, they receive instructions as supported in column 3, lines 23 – 25 of the reference) and transfer the first user communications to the optical network over the second optical wavelength responsive to the control instruction (OLT2 is used if a break occurs in figure 2A).

However, Gerstel et al. does not teach the communications system, wherein the user is configured to detect the problem with the transfer of the first user communications over the first optical wavelength and transfer a control instruction to the first POP.

Rochberger et al. teaches the optical network is configured to detect the problem with the transfer of the first user communications over the first optical wavelength (column 15, lines 55 – 61, when the break occurs, either node on each side can detect it, 16 or 18 in figure 15) and transfer a control instruction to the first POP (112 in figure 8, release message is the same as a control message).

The detection function commonly operates on a layer that is available either at the terminal of the user or in the network itself, depending on a design choice. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to place the detection function at the user terminal and send a control message as taught by Rochberger et al. in the network taught by Gerstel et al. because it would have preserved data flow and minimize data loss (column 5, line 3).

(3) With respect to claims 8 and 24:

Gerstel et al. teaches the user (53 in figure 2A) and the communications system, wherein:

the second POP (52 in figure 2B) is configured to receive the control instruction (inputs 116 and 102 of processors 114 and 100 respectively, they receive instructions as supported in column 3, lines 23 – 25 of the reference) and receive the first user communications from the optical network over the second optical wavelength (LI (T2) in figure 2B) responsive to the control instruction (OLT2 is used if a break occurs in figure 2A).

However, Gerstel et al. does not teach the communications system, wherein the user is configured to detect the problem with the transfer of the first user communications over the first optical wavelength and transfer a control instruction to the second POP.

Rochberger et al. teaches the optical network is configured to detect the problem with the transfer of the first user communications over the first optical wavelength (column 15, lines 55 – 61, when the break occurs, either node on each side can detect

it, 16 or 18 in figure 15) and transfer a control instruction to the second POP (112 in figure 8, release message is the same as a control message).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to place the detection function at the user terminal and send a control message as taught by Rochberger et al. in the network taught by Gerstel et al. because it would have preserved data flow and minimize data loss (column 5, line 3).

6. Claims 12 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerstel et al. (6,898,376) in view of Kim et al. (20020172148).

With respect to claims 12 and 28:

Gerstel et al. teaches all of the subject matter as described above, except for the communication system, wherein the wavelength switching system is configured to detect the problem with the transfer of the first user communications over the first optical wavelength.

However, Kim et al. teaches the communication system, wherein the wavelength switching system (130 in figure 2, "access switch") is configured to detect the problem with the transfer of the first user communications over the first optical wavelength (page 3, paragraph 0044, "the invention incorporates monitor/detection function...that function is incorporated into edge switch 130" in figure 2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the switching scheme as taught by Kim et al. in the network of Gerstel et al. because it provides a more reliable transmission of data through the network (page 1, paragraph 0010).

7. Claims 15 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerstel et al. (6,898,376) in view of Weston-Dawkes et al. (20030215231).

With respect to claims 15 and 31:

Gerstel et al. teaches all of the subject matter as described above except for the communication system comprises a Synchronous Optical Network Add/Drop Multiplexer system configured to receive the first user communications from the WDM system over he first optical wavelength and transfer the first user communications to the optical network over the first optical wavelength or to receive the first user communications from the WDM system over the second optical wavelength and transfer the first user communications to the optical network over the second optical wavelength.

However, Weston-Dawkes et al. teaches the communication system comprises a Synchronous Optical Network Add/Drop Multiplexer (28 in figure 8, in page 2, paragraph 0021, the reference supports blocks 28 in figure 8 as being an add/drop Mux, and in page 3, paragraph 0030, the reference teaches the different modulation scheme supported by the system) system configured to receive the first user communications from the WDM system over the first optical wavelength (in 12_1 in figure 8, block 42 is a switching system which could be a WDM according to the reference page 4, paragraph 0042, it outputs a primary path or a secondary "left line or right line", which goes to the add/drop Mux of block 28) and transfer the first user communications to the optical network over the first optical wavelength (left line or right line of block 28 in figure 8) or to receive the first user communications from the WDM system over the second optical wavelength (either left or right line of block 28 could be the primary or protection path in

figure 8) and transfer the first user communications to the optical network over the second optical wavelength.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to connect the user to the network as taught by Weston-Dawkes et al. in the network of Gerstel et al. because the cost of the system would be lower (page 1, paragraph 0010).

8. Claims 16 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerstel et al. (6,898,376) and Weston-Dawkes et al. (20030215231) as applied to claim 13 above, and further in view of Lee et al. (20030012129).

With respect to claims 16 and 32:

Gerstel et al. and Weston-Dawkes et al. disclose all of the subject matter as described above, except for the SONET ADM system is configured to detect the problem with the transfer of the first user communications over the first optical wavelength and transfer a control instruction to the wavelength switching system; and the wavelength switching system is configured to receive the control instruction and transfer the first user communications to the optical network over the second optical wavelength responsive to the control instruction.

However, Lee et al. teaches the SONET ADM system (the reference teaches a RPR which operates with SONET ADM as mentioned in page 1, paragraph 0002) is configured to detect the problem with the transfer of the first user communications over the first optical wavelength (page 3, paragraph 0034, if one node detects a segment failure) and transfer a control instruction to the wavelength switching system (404 in

figure 4, it notifies the source RPR); and the wavelength switching system is configured to receive the control instruction (page 3, paragraph 0034, "upon receiving such a notification, which is the control message) and transfer the first user communications to the optical network over the second optical wavelength responsive to the control instruction (404 in figure 4, it reroutes the data onto the protection path).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the SONET ADM system detect a problem as taught by Lee et al. in the network of Gerstel et al. because it would have achieved faster protection switching (page 1, paragraph 0015).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guerssy Azemar whose telephone number is (571)270-1076. The examiner can normally be reached on Mon-Fri (every other Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571)272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Guerssy Azemar

09/29/2006

KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER